Louisville Metro Air Pollution Control District

850 Barret Ave., Louisville, Kentucky 40204
23 April 2013

Title V Statement of Basis

Company: E. I. DuPont de Nemours & Co., Inc.

Plant Location: 4200 Camp Ground Road, Louisville, KY 40216

Date Application Received: 02 March 2007 **Date Admin Complete:** 01 May 2007

Date of Draft Permit: 02 March 2013

District Engineer: Shannon Hosey **Permit No:** 160-97-TV (R1)

Plant ID: 0062 **SIC Code:** 2819 **NAICS**: 325188 & 325199 **AFS:** 0062

Introduction:

This permit will be issued pursuant to: (1) Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for lead (Pb), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), 1 hr and 8 hr ozone (O_3), and particulate matter less than 10 microns (PM_{10}); and is a non-attainment area for particulate matter less than 2.5 microns ($PM_{2.5}$).

Application Type/Permit Activity:

[ ] Initial Issuance

[ ] Permit Revision
- [ ] Administrative
- [ ] Minor
- [ ] Significant

[X] Permit Renewal

Compliance Summary:

[X] Compliance certification signed
[ ] Source is out of compliance
[ ] Compliance schedule included
[X] Source is operating in compliance

I. Source Information

1. Product Description: E. I. DuPont de Nemours & Co., Inc. (DuPont) manufactures refrigerant gases.

2. Process Description: Two natural gas fired boilers supply steam to DuPont's chemical manufacturing units. A gasoline dispensing facility is operated for company vehicles.

3. Site Determination: There are no other facilities that are contiguous or adjacent and under common control.

4. Emission Unit Summary:

Emission Unit	Equipment Description
U1- Powerhouse	Two natural gas boilers equipped with low NO_x burners.
U3 - Freon® 22/ Freon® 23 Process	Freon® production
U4 - HCL	HCl production
U5 - Gasoline Dispensing	A gasoline refueling operation for vehicles used onsite
U6 – VF Process	Vinyl fluoride production

5. Permit Revisions:

Revision No.	Issue Date	Public Notice Dates	Type	Page No.	Description
N/A	08/30/2002	9/24/00, 12/10/00, 1/28/01	Initial	Entire Permit	Initial Permit Issuance
R1	04/23/2013	03/02/2013	Renewal	Entire Permit	Regular Renewal; Incorporate STAR requirements, Construction Permits 394-05-C, 344-08-C, 345-08-C, 81-09-C, 82-09-C and 133-09-C

6. Fugitive Sources: Fugitive emissions of VOCs from the F22/F23 process are regulated by 40 CFR 63 Subpart H National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.

7. Emission Summary:

Pollutant	Actual Emissions (tpy) 2010 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	19.32	Yes
NO_x	36.17	Yes
SO_2	0.18	No
PM_{10}	22.22	No
VOC	17.54	No
Single HAP> 1 tpy		
Hydrochloric Acid	1.35	Yes
Hydrogen Fluoride	1.00	No
Total HAPs	3.35	No

8. Applicable Requirements:

[ ] PSD [X] 40 CFR 60 [X] 40 CFR 63 [X] SIP
[ ] NSR [ ] 40 CFR 61 [X] District-Origin [ ] Other

9. Referenced Federal Regulations in Permit:

40 CFR 60 Db	Standards of Performance for Industrial Commercial Institutional Steam Generating Units
40 CFR 63 Subpart F	National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry
40 CFR 63 Subpart G	National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater
40 CFR 63 Subpart H	National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks
40 CFR 63 FFFF	National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous

	Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters
40 CFR 63 Subpart NNNNN	National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production
40 CFR Part 64	Compliance Assurance Monitoring for Major Stationary Sources
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 82	Protection of Stratospheric Ozone

II. Regulatory Analysis

1. Acid Rain Requirements: The source is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase out of their use. This rule applies to any source that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. E. I. DuPont de Nemours & Co., Inc. produces chlorodifluoromethane (R22) and currently uses chlorodifluoromethane and SUVA® 134a as refrigerants in process refrigeration machines. Chlorodifluoromethane is a Class II refrigerant under Title VI and the source shall comply with all applicable Title VI requirements of 40 CFR Part 82 Protection of Stratospheric Ozone Subpart A, Production and Consumption Controls and 40 CFR 82 Protection of Stratospheric Ozone Subpart F, Recycling and Emissions Reduction. SUVA® 134a is not a Class II or Class I refrigerant and is not regulated by Title VI. The District does not have Title VI authority.

3. Prevention of Accidental Releases 112(r): E. I. DuPont de Nemours & Co., Inc. stores and processes difluoroethane and vinyl fluoride in excess of the 10,000 pound threshold quantity, chloroform in excess of the 20,000 pounds threshold quantity, chlorine in excess of the 2,500 pounds threshold quantity, and hydrogen fluoride (at greater than 50% concentration) in excess of the 1,000 pounds threshold quantity, and therefore, is required to comply with 40 CFR 68 Chemical Accident Prevention Provisions Subpart G Risk Management Plan and Regulation 5.15 Chemical Accident Prevention Provisions. A plan was received on September 30, 2010.

4. Basis of Regulation Applicability

a. **Plant-wide**

E. I. DuPont de Nemours & Co. is a major source for CO, NOx and HCL. Regulation 2.16 - *Title V Operating Permits* establishes requirements for major sources.

b. **Star Program**

Regulations 5.00, 5.01, 5.20, 5.21, 5.22 and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. E. I. DuPont de Nemours & Co. submitted their Category 1 and Category 2 TAC Environmental Acceptability Demonstration to the District on December 29, 2006, May 25, 2007, April 1, 2008 and April 8, 2009.

Based on Tier 4 ISC3 refined air modeling, the carcinogenic risk for each Category 1 and Category 2 TAC are below 1.0 for non-industrial property and below 10.0 for industrial property with the fuel oil usage limits and utilizing the vapor recovery system on the chloroform storage tanks for each process. The carcinogenic risk for all Category 1 and Category 2 TACs for all processes are below 7.5 for non-industrial property and below 75.0 for industrial property. Since the maximum off-site Risk meets the more stringent non-industrial R_c of less than 1.0 for individual process equipment and less than 7.5 for the plant-wide cumulative risk, the source has demonstrate compliance with the EA Goals for each TAC.

TAC	Risk from all processes on non-industrial property	Risk from all processes on industrial property
Chloroform	0.43	5.81
Formaldehyde	0.02	0.04
Arsenic	0.21	0.48
Cadmium	0.03	0.06
Chromium^{+6}	0.11	0.25
Nickel	0.86	1.87
Hydrofluoric Acid	0.18	0.18
Chlorine	0.325	0.325
Cobalt/Cobalt Compounds	0.066	0.066
Manganese/ Manganese Compounds	0.0092	0.0092
Naphthalene	0.000057	0.000057
Total	2.24	9.09

The TAC emissions from the combustion of natural gas are considered to be "de minimis emissions" by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas.

c. **Applicable Regulations**

Regulation	Title	Type
1.05	Compliance with Emission Standards and Maintenance Requirements	SIP
2.16	Title V Operating Permits	SIP
5.00	Standards for Toxic Air Contaminants and Hazardous air Pollutants, Definitions	Local
5.01	General Provisions	Local
5.02	Adoption and Incorporation by Reference of National Emissions Standards for Hazardous Air Pollutants	Local
5.14	Hazardous Air Pollutants and Source Categories	Local
5.15	Chemical Accident Prevention Provisions	Local
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	Local
5.21	Environmental Acceptability for Toxic Air Contaminants	Local
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	Local
5.23	Categories of Toxic Air Contaminants	Local
6.18	Solvent Metal Cleaning Equipment	SIP
6.24	Standard of Performance for Existing Sources Using Organic Materials	SIP
6.40	Standard of Performance for Gasoline Transfer to Motor Vehicles (Stage II Vapor Recovery and Control)	SIP
6.42	Reasonably Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities	SIP
7.02	Adoption of Federal New Source Performance Standards	SIP
7.06	Standards of Performance for New Indirect Heat Exchangers	SIP
7.15	Standards of Performance for Gasoline Transfer to New Service Station Storage Tanks (Stage I Vapor Recovery)	SIP
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	SIP
40 CFR 60 Subpart A	General Provisions	Federal
40 CFR 60 Subpart Db	Standards of Performance for Industrial Commercial Institutional Steam Generating Units	Federal
40 CFR 63 Subpart A	General Provisions	Federal
40 CFR 63 Subpart F	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing	Federal

Regulation	Title	Type
	Industry	
40 CFR 63 Subpart G	National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations and Wastewater	Federal
40 CFR 63 Subpart H	National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks	Federal
40 CFR 63 Subpart NNNNN	National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production	Federal
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	Federal
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	Federal
40 CFR 68	Chemical Accident Prevention Provisions	Federal
40 CFR 82	Protection of Stratospheric Ozone	Federal

d. **Basis for Applicability**

Regulation	Basis for Applicability
1.05	All sources emitting VOCs in quantities equal to or greater than 100 tons per year and all Control Technique Guidance (CTG) sources emitting VOCs in quantities of 25 tons or more per year or some lesser applicability amount as defined in the specific CTG regulation shall maintain daily records and calculations that demonstrate daily compliance with the VOC emission standards defined in the applicable portions of Regulation 6 or 7.
2.16	Title V source
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.15	Chemical Accident Prevention Provisions
5.21	Establishes the criteria for determining the environmental acceptability of emissions of toxic air contaminants.
6.18	Applies to each cold cleaners, open top vapor degreasers, and conveyorized degreasers that use volatile organic compounds (VOCs) to remove soluble impurities from metal surfaces.
6.24	Any affected facility using any organic materials which was in being prior to June 13, 1979.
6.40	Applies to the refueling of motor vehicles at a gasoline dispensing facility
6.42	Applies to the VOC and NOx emissions from all VOC and NOx -emitting facilities located at all major VOC and NOx -emitting stationary sources
7.02	Adoption of Federal New Source Performance Standards

Regulation	Basis for Applicability
7.06	Establishes emission standards for indirect heat exchangers constructed after April 9, 1972 with a heat input capacity of less than 250 MMBtu/hr.
7.15	Applies to the transfer of VOC from transport tanks into storage tanks constructed after June 13, 1979
7.25	Affected facility constructed after June 13, 1979 for VOC. The core winders use an adhesive which contains VOC, therefore is subject to Regulation 7.25.
40 CFR 60 Subpart A	General Provisions
40 CFR 60 Subpart Db	Subpart Db applies to steam generating units for which construction or modification is commenced after June 19, 1984 and that have a maximum design heat input capacity greater than 100 MMBtu/hr.
40 CFR 63 Subpart A	These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants.
40 CFR 63 Subpart F	Applies to Synthetic Organic Chemical Manufacturing Industry
40 CFR 63 Subpart G	Applies to Synthetic Organic Chemical Manufacturing Industry Process Vents, Storage Vessels, Transfer Operations, and Wastewater
40 CFR 63 Subpart H	Applies to facilities with Organic Hazardous Air Pollutants for Equipment Leaks
40 CFR 63 Subpart NNNNN	Applies to facilities that produce Hydrochloric Acid
40 CFR 63 Subpart DDDDD	Applies to facilities with Industrial, Commercial, and Institutional Boilers and Process Heaters located at a major source
40 CFR 63 Subpart ZZZZ	Applies to facilities with Stationary Reciprocating Internal Combustion Engines
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 82	Protection of Stratospheric Ozone

e. Emission Unit U1 – Powerhouse

i. Equipment:

Emission Point	P/PE	Installation Date	Applicable Regulation
1000	174 MMBtu/hr Babcock and Wilcox Boiler	1994	6.42
			7.06
			40 CFR 60 Subpart Db
1001	174 MMBtu/hr Babcock and Wilcox Boiler		40 CFR 63 Subpart DDDDD

ii. Standards/Operating Limits

1) PM

a) In accordance with Regulation 7.06, section 4.1.2, since the total heat input capacity within the source is more than 250 MMBtu, the PM emission standards is

0.10 lb/MMBtu.

b) A one-time PM compliance demonstration for the boiler, using AP-42 emission factors and combusting natural gas, has been performed and the emission standards for PM cannot be exceeded.

2) **Opacity**

In accordance with Regulation 7.06, section 4.2, the owner or operator shall not cause to be discharged into the atmosphere from any affected facility particulate matter emissions which exhibit greater than 20% opacity.

3) **SO_2**

In accordance with Regulation 7.06, section 5.1.2, any gas discharged to the atmosphere cannot contain SO_2 in excess of 0.8 pounds per million BTU actual total heat input for combustion of gaseous fuels. The limit was determined using the total heat input for all indirect heat exchangers subject to Regulation 7.06 which totals more than 250 MMBtu/hr.

4) **NOx**

a) Regulation 6.42, section 4.3 requires the permit applicant for NO_x emitting facilities to propose RACT emission limiting standards and RACT emission control technology. The source shall comply with the NOx RACT plan that was adopted by Board Order on November 8, 1999.

b) From 40 CFR 60 Subpart Db, since the fuel/steam generating unit type is high heat release rate, the emission limit is 0.2 lb/MMBtu.

c) Regulation 7.06 applies to these boilers, however since they are each less than 250 million BTU per hour, there is no applicable standard.

5) **HAP**

40 CFR 63 Subpart DDDDD establishes HAP standards that will become effective on 21 March 2014 or whenever the Federal Regulation is passed into law.

6) **TAC**

Pursuant to Regulations 5.00, 5.01, 5.21 and 5.23, TAC emissions shall not exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimis levels provided by the District.

iii. **Monitoring and Record Keeping**

1) **PM**

There are no compliance monitoring requirements for PM for Regulation 7.06. However, Regulation 2.16, sections 4.1.9.1 and 4.1.9.2 requires sufficient monitoring and record keeping to ensure ongoing compliance with the terms and conditions of the permit. The potential uncontrolled PM emissions are below the applicable PM emission standard.

2) **Opacity**

The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard.

3) **SO_2**

a) Regulation 7.06 does not require any specific monitoring requirements to demonstrate ongoing compliance with the SO_2 emission standard. However, Regulation 2.16, sections 4.1.9.1 and 4.1.9.2 establishes requirements for sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The potential uncontrolled emissions of SO_2 are below the applicable emission standard in Regulation 7.06; therefore, no compliance monitoring is required.

b) 40 CFR 60 Subpart Db requires the owner or operator to record and maintain records of the amount of each fuel combusted during each calendar month.

4) **NOx**

a) 40 CFR 60, Subpart Db requires a CEM system to be installed, calibrated and maintained.

b) 40 CFR 60, Subpart Db requires records necessary to ensure compliance with the standards.

5) **HAP**

The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR 63, Subpart DDDDD.

6) **TAC**

Per Regulation 5.21, section 2.7, the TAC emissions from the combustion of natural gas are considered to be "de minimis emissions" by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas.

iv. **Reporting**

1) **PM**

There are no compliance monitoring requirements for PM for Regulation 7.06. The potential uncontrolled PM emissions are below the applicable PM emission standard. Regulation 2.16, section 4.1.9.3 requires sufficient reporting requirements to assure compliance with the terms and conditions of the permit.

2) **Opacity**

Regulation 2.16, section 4.1.9.3 requires sufficient reporting requirements to assure compliance with the terms and conditions of the permit.

3) **SO_2**

The source is required to comply with applicable reporting requirements of 40 CFR 60, Subpart Db.

4) **NOx**

The source is required to comply with applicable reporting requirements of 40 CFR 60, Subpart Db and Regulation 2.16, section 4.1.9.3 requires sufficient reporting requirements to assure compliance with the terms and conditions of the permit.

5) **HAP**

The source is required to comply with reporting requirements of 40 CFR 63, Subpart DDDDD.

6) **TAC**

Per Regulation 5.21, section 2.7, the TAC emissions from the combustion of natural gas are considered to be "de minimis emissions" by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas.

f. **Emission Unit U3** – Freon® 22/Freon® 23 Process

i. **Equipment:**

Emission Point	P/PE	Installation Date	Applicable Regulation
3000	Storage Tank (TS-3)	1954	5.21 6.13 40 CFR 63 Subpart F, G, H
	Storage Tank (TS-18)		
3001	Vaporizer (V-1)	1966	5.21
	Vaporizer (V-2)		
3002	Reactor #1	1986	5.21 6.24 40 CFR 63 Subpart F, G, H
	Reactor #2	1991	
	Tank (TR-8)	1982	
	Tank (TW-1)	1955	
3009	Fugitive Emissions	Unknown	40 CFR 63 Subpart F, G

ii. **Standards/Operating Limits**

1) **VOC**

a) For Emission Point 3000, Regulation 6.13, section 3.1 requires a vapor recovery system.

b) Regulation 6.24 limits the pound per hour and pound per day emission of Class III Solvents. Class III

Solvent means any organic material which is not classified as a Class I or a Class II solvent. A one-time compliance demonstration was performed and the standard cannot be exceeded uncontrolled.

2) **HAP**

a) 40 CFR 63 Subpart F, 40 CFR 63 Subpart G and 40 CFR 60 Subpart H establishes HAP standards.

b) Regulation 6.39 does not apply to affected facilities that are also subject to 40 CFR 63 Subpart H where such standards are applicable to the affected facility either directly or through incorporation by reference into another standard promulgated under 40 CFR 63.

3) **District Regulation 5.15 Regulated Substance (40 CFR 68 Subpart G)**

The source shall comply with the Risk Management Plan submitted on September 30, 2010.

4) **TAC**

a) Pursuant to Regulations 5.00, 5.01, 5.21 and 5.23 TAC emissions shall not exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimis levels provided by the District.

b) The owner or operator shall utilize the vapor recovery system at all times the chloroform storage tanks are in operation.

iii. **Monitoring and Record Keeping**

1) **VOC**

Regulation 6.24 does not require any specific monitoring or record keeping requirements for VOC, however, Regulation 2.16, sections 4.1.9.1 and 4.1.9.2 establishes requirements for sufficient monitoring and record keeping to ensure ongoing compliance with the terms and conditions of the permit.

2) **HAP**

The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR 63, Subpart F, 40 CFR 63, Subpart G and 40 CFR 63, Subpart H.

3) **TAC**

The source is required to maintain records of all periods when a TAC process was operating while an associated control device was not operating to assure ongoing compliance with Regulations 5.00, 5.01, 5.21, and 5.23.

iv. **Reporting**

1) **VOC**

Regulation 2.16, section 4.1.9.3 requires sufficient reporting to ensure ongoing compliance with the terms and conditions of the permit.

2) **HAP**

The source is required to comply with reporting requirements of 40 CFR 63, Subpart F, 40 CFR 63, Subpart G and 40 CFR 63, Subpart H.

3) **TAC**

Regulation 2.16, section 4.1.9.3 requires sufficient reporting requirements to assure compliance with the terms and conditions of the permit.

g. **Emission Unit U4 – HCL**

i. **Equipment:**

Emission Point	P/PE	Installation Date	Applicable Regulation
4000	HCL Stripping, Storage and Loading	1977	5.21
4001	Fugitive Emissions, HCL	N/A	40 CFR Part 63 Subpart NNNNN

ii. **Standards/Operating Limits**

1) **HAP**

40 CFR 63, Subpart NNNNN establishes HAP standards.

2) **District Regulation 5.15 Regulated Substance (40 CFR 68 Subpart G)**

The source shall comply with the Risk Management Plan submitted on September 30, 2010.

3) **TAC**

Pursuant to Regulations 5.00, 5.01 and 5.21, TAC emissions shall not exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimis levels provided by the District.

iii. **Monitoring and Record Keeping**

1) **HAP**

The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR 63, Subpart NNNNN.

2) **TAC**

Regulation 2.16, sections 4.1.9.1 and 4.1.9.2 establish monitoring and record keeping requirements to assure ongoing compliance with the terms and conditions of the permit.

iv. **Reporting**

1) **HAP**

The source is required to comply with applicable reporting requirements of 40 CFR 63, Subpart NNNNN.

2) **TAC**

Regulation 2.16, section 4.1.9.3 requires sufficient reporting requirements to assure compliance with the terms and conditions of the permit.

h. **Emission Unit U5 –** Gasoline Dispensing

i. **Equipment:**

Emission Point	P/PE	Installation Date	Applicable Regulation
5000	Gasoline Dispensing, 1000 gallon unleaded gasoline storage tank	1992	6.40
			7.15

ii. **Standards/Operating Limits**

1) **VOC**

a) Regulation 7.15 requires that storage tanks shall be equipped with the following:

i. A submerged fill pipe;
ii. If the gasoline storage tank is equipped with a separate gauge well, a gauge well drop tube shall be installed which extends to within six inches of the bottom of the tank;
iii. Vent line restrictions on the affected facility; and
iv. Vapor balance system and vapor tight connections on the liquid fill and vapor return hoses. The cross-sectional area of the vapor return hose and any other vapor return passages in the circuit connecting the vapor space in the service station tank to that of the truck tank must be at least 50% of the liquid fill hose cross-sectional area for each tank and free of flow restrictions to achieve acceptable recovery. The vapor balance equipment must be maintained according to the manufacturer's specifications. The type, size and design of the vapor balance system are subject to the approval of the District.

b) Regulation 6.40 requires that the source does not exceed 10,000 gallons of throughput per month, in order to be exempt.

2) **TAC**

Pursuant to Regulations 5.00, 5.01, 5.21 and 5.23 TAC emissions shall not exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimis levels provided by the District.

iii. **Monitoring and Record Keeping**

1) **VOC**

Regulation 7.15 and 6.40 does not require any specific monitoring or record keeping requirements for VOC, however, Regulation 2.16, sections 4.1.9.1 and 4.1.9.2 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

2) **TAC**

Per Regulation 5.21, section 2.6, the TAC emissions from a motor vehicle fueling or refueling process and process equipment for gasoline and other liquid fuels are considered to be "de minimis emissions" by the District.

iv. **Reporting**

1) **VOC**

Regulation 2.16, section 4.1.9.3 establishes reporting requirements to assure ongoing compliance with the terms and conditions of the permit.

2) **TAC**

Per Regulation 5.21, section 2.6, the TAC emissions from a motor vehicle fueling or refueling process and process equipment for gasoline and other liquid fuels are considered to be "de minimis emissions" by the District.

i. Emission Unit U6 – VF Process

i. Equipment:

Emission Point	P/PE	Installation Date	Applicable Regulation
6000 Emission Points			
AB-400	Adsorbers	1962	5.21 40 CFR 63 Subpart FFFF
AB-401	Adsorbers	1962	5.21 40 CFR 63 Subpart FFFF
CL-405	Distillation Column with Condenser (C-405) and Reboiler (BR-405)	2009	1.05 5.21 5.15 7.25
CL-406	Distillation Column with Condenser	2009	1.05 5.21

Emission Point	P/PE	Installation Date	Applicable Regulation
	(C-406) and Reboiler (BR-406)		5.15 7.25 40 CFR 63 Subpart F,G,H
CL-500	Distillation Column with Condenser (C-500) and Reboiler (BR-500)	2010/2003/2003	5.21
CL-503	Distillation Column with Condenser (C-302) and Tar Concentrator (TR-302)	2011/2003	5.21
CO-410	Cooler	2008	1.05 5.21 5.15 7.25
CO-411	Cooler	2009	1.05 5.21 5.15 7.25
F-416	Filter	2008	1.05 5.21 5.15 7.25
F-419	Filter	2009	1.05 5.21 5.15 7.25
H-405N	Heat Exchanger	2008	1.05 5.21 5.15 7.25
H-405S	Heat Exchanger	2008	1.05 5.21 5.15 7.25
H-406	Heat Exchanger	2008	1.05 5.21 5.15 7.25
RE-301	Tank	1993	5.21 40 CFR 63 Subpart FFFF
RE-402	Reactor	2008	1.05 5.21 5.15 7.25
S-402	Separator	2008	1.05 5.21 5.15 7.25
T-403	Tank	2009	1.05 5.21 5.15 7.25
TR-303	Receiver	2009	NA
TR-304	Receiver	2009	NA

Emission Point	P/PE	Installation Date	Applicable Regulation
TS-401	Tank	1961	5.21 40 CFR 63 Subpart FFFF
V-301	Vent Reactor with Condenser (C-303)	1994/2006	5.21
V-402	Vaporizer	2008	1.05 5.21 5.15 7.25
8275CP	Compressor	2009	1.05 5.21 5.15 7.25
6001 Emission Points			
CL-407	Distillation Column with Condenser (C-407) and Reboiler (BR-407)	2009	1.05 5.15 7.25 40 CFR 63 Subpart FFFF
CO-413 a &b	Cooler	2009	1.05 5.21 5.15 7.25 40 CFR 63 Subpart FFFF
F-409	Filter	2009	1.05 5.15 7.25 40 CFR 63 Subpart FFFF
F-410	Filter	2009	1.05 5.15 7.25 40 CFR 63 Subpart FFFF
TR-402	Tank	1964	1.05 5.21 5.15 6.24 40 CFR 63 Subpart FFFF
TR-403	Tank	1964	1.05 5.21 5.15 6.24 40 CFR 63 Subpart FFFF
TR-404	Tank	1964	1.05 5.21 5.15 6.24 40 CFR 63 Subpart FFFF
8850CP	Compressor	2003	1.05 5.21 5.15 7.25 40 CFR 63 Subpart FFFF
8880CP	Compressor	2009	1.05 5.21 5.15 7.25 40 CFR 63 Subpart FFFF
6002 Emission Point			

Emission Point	P/PE	Installation Date	Applicable Regulation
C-408	Condenser	2009	40 CFR 63 Subpart FFFF
6003 Emission Point			
NA	Pumps, connections, valves	N/A	40 CFR 63 Subpart FFFF
NA	Pumps, connections, gas valves, liquid valves	N/A	40 CFR 63 Subpart FFFF
6005 Emission Point			
HF-6005	Unloading	1980	40 CFR 63 Subpart FFFF

ii. **Standards/Operating Limits**

1) **VOC**

a) For Emission Points (S-402, V-402, H-406, H-405N, H-405S, RE-402, F-416, CO-410, F-419, 8275CP, CO-411, CL-405, T-403, CL-406, CL-407):

The source shall limit the combined VOC emissions to 1.38 tons per any consecutive 12-month period per Regulation 7.25 and the associated BACT.

b) Regulation 6.24 limits the pound per hour and pound per day emission of Class III Solvents. Class III Solvent means any organic material which is not classified as a Class I or a Class II solvent. The source cannot exceed the pound per day or pound per hour limits in Regulation 6.24 for Class III solvents.

2) **HAP**

40 CFR 63, Subpart FFFF establishes HAP standards.

3) **District Regulation 5.15 Regulated Substance (40 CFR 68 Subpart G)**

The source shall comply with the Risk Management Plan submitted on September 30, 2010.

4) **TAC**

a) Pursuant to Regulations 5.00, 5.01, 5.21 and 5.23 TAC emissions shall not exceed environmentally acceptable levels whether specifically established by modeling or derived from default de minimis levels provided by the District.

b) The owner or operator shall utilize Scrubber (SB-403) at all times that any of the process equipment is in operation.

c) The potential uncontrolled Hydrogen Fluoride (Category 2 TAC) emissions are less than the de minimis rate of 7.6 pounds per hour. The potential controlled Hydrogen Fluoride (Category 2 TAC) emissions are less than the de minimis rate of 6,720 pounds per year. Therefore, in order to be environmentally acceptable the control device must be operated at all times.

d) Scrubber (SB-403) shall have a minimum control efficiency of 91.4% per Regulation 5.21.

iii. **Monitoring and Record Keeping**

1) **VOC**

a) Regulation 6.24 does not require any specific monitoring or record keeping requirements for VOC, however, Regulation 2.16, sections 4.1.9.1 and 4.1.9.2 establishes requirements for sufficient monitoring and record keeping to ensure ongoing compliance with the terms and conditions of the permit.

b) The source cannot exceed the pound per hour limits in Regulation 6.24 for Class III solvents.

2) **HAP**

a) The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR 63, Subpart FFFF.

b) The HON (40 CFR 63, Subparts F, G, and H) is applicable because hydrogen fluoride is a raw material in the production of Freon®-22. However, since there aren't any organic HAPs, there are no requirements.

c) There are no process streams in the VF Miscellaneous organic Chemical manufacturing Process Unit (MCPU) that contain organic HAPs. Therefore, the Miscellaneous Organic NESHAP (MON) leak detection and repair (LDAR)

monitoring requirements do not apply to the Vinyl Fluoride process.

d) The heat exchange systems used in the VF MCPU are all closed loop systems that use steam, water, or non-HAP brines (propylene glycol and salt solutions). Since there are no organic HAPs in the process fluids or the heat exchange systems, the heat exchange monitoring requirements do not apply.

e) Hydrogen fluoride (HF) is the only HAP contained in wastewater streams from the VF MCPU. It is an inorganic HAP and not listed in the applicable tables, therefore the wastewater streams do not meet the definition of MON wastewater and the requirements are not applicable.

3) **TAC**

a) The source is required to maintain records of all periods when a TAC process was operating while an associated control device was not operating to assure ongoing compliance with Regulations 5.00, 5.01, 5.21, and 5.23.

b) The source is required to monitor and record the flow rate of water to Scrubber (SB-403) in order to ensure that the flow rate equals or exceeds the minimum manufacturer's specification of 100 gallons per minute per Regulation 5.21.

iv. **Reporting**

1) **VOC**

Regulation 2.16, section 4.1.9.3 establishes reporting requirements to assure ongoing compliance with the terms and conditions of the permit.

2) **HAP**

The source is required to comply with applicable reporting requirements of 40 CFR 63, Subpart FFFF.

3) **TAC**

Regulation 2.16, section 4.1.9.3 requires sufficient reporting requirements to assure compliance with the terms and conditions of the permit.

III. Other Requirements

1. Temporary Sources: The source did not request to operate any temporary facilities.

2. Short Term Activities: The source did not report any short term activities.

3. Emissions Trading: N/A

4. Alternative Operating Scenarios: The source did not request an alternative operating scenario in its Title V application.

5. Compliance History

Incident Date(s)	Regulation Violated	Result
06/04/1993	6.39 pursuant to 40 CFR 60 Subpart VV	Settled
07/01/1998	40 CFR 60 Subpart Db	Settled
01/27/2000	40 CFR 60 Subpart Db	Settled
09/03/2009	40 CFR 63 Subpart H and 40 CFR 63 Subpart NNNNN	Settled
06/30/2011	1.07 and 1.7	Settled

E. I. DuPont de Nemours & Co. is required to submit their annual Compliance Certification to the District on or before April 15th of each calendar year. As of the effective date of Permit 160-97-TV (R1), there are no compliance schedules in effect or progress reports required.

6. Calculation Methodology: The emission calculations for the various pieces of equipment are derived from stack test results, AP-42 emission factors, EPA guidance documents, CEMs, mass balances and engineering judgments.

7. Insignificant Activities

Equipment	Quantity	Basis for Exemption
Internal Combustion Engines	25	Regulation 2.02, 2.2
Brazing, Soldering or Welding Equipment	5	Regulation 2.02, 2.3.4
Woodworking, Not Including Conveying, Hogging or Burning of Sawdust	8	Regulation 2.02, 2.3.5
Emergency Relief Vents and Ventilating Systems (Not Otherwise Regulated)	324	Regulation 2.02, 2.3.10
Laboratory Ventilating	1	Regulation 2.02, 2.3.11
Laundry	1	Regulation 2.02, 2.3.3
Portable Diesel or Gasoline Storage Tanks	1	Regulation 2.02, 2.3.23
Above-Ground Fuel Oil Storage Tanks	7	Regulation 2.02, 2.3.9.2
On-Site Quality Control Laboratories	2	Regulation 2.02, 2.3.11
Laboratory Ventilating and Exhausting Systems for Non-Radioactive Materials	3	Regulation 2.02, 2.3.11

Equipment	Quantity	Basis for Exemption
Salt Furnace and Associated Natural Gas Burner (5 MM BTU/Hr)	1	Regulation 2.02, 2.1.1 (See Note 5)
Blast Cleaning (Abrasives in Water)	2	Regulation 2.02, 2.3.13
Soil or Groundwater Contamination Remediation Project	1	Regulation 2.02, 2.3.20
Dust or Particulate Collectors that are Located In-Doors, Vent Directly Indoors Into the Work Space	5	Regulation 2.02, 2.3.21
Glass Bead Blaster	1	Regulation 2.02, 2.3.20
Portable Diesel/Gasoline Storage Tanks	5	Regulation 2.02, 2.3.23
VOC Storage Vessels with Maximum Capacity of 250 Gals or Less	9	Regulation 2.02, 2.3.24
Pressurized VOC Storage Vessels	5	Regulation 2.02, 2.3.26
Research and Development Activities	3	Regulation 2.02, 2.3.27
Two (2) Non-halogenated Cold Solvent Parts Cleaners	2	Regulation 2.02, 2.3.22 (See Note 6)

1) Insignificant Activities are only those activities or processes falling into the general categories defined in District Regulation 2.02, Section 2, and not associated with a specific operation or process for which there is a specific regulation. Equipment associated with a specific operation or process (Emission Unit) shall be listed with the specific process even though there may be no applicable requirements. Information contained in the permit and permit summary shall clearly indicate that those items identified with negligible emissions have no applicable requirements.

2) Activities identified in District Regulation 2.02, Section 2, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source.

3) For all insignificant activities that emit regulated air pollutants for which the company has accepted a plant-wide limit, the company shall maintain sufficient records to calculate the emissions and report those emissions in the quarterly compliance reports and the annual emissions inventory report.

4) The Insignificant Activities table is correct as of the date the permit was proposed for review by the USEPA, Region 4. The company shall submit an updated list of insignificant activities annually with the Title V compliance certification pursuant to District Regulation 2.16, section 4.3.5.3.6.

5) This equipment has an applicable regulation, but meets the definition of an insignificant activity in Regulation 2.16, section 2.1.1. Regulation 7.08 applies, with standards in sections 4.1.

6) This equipment has an applicable regulation, but meets the definition of an insignificant activity in Regulation 2.16, section 1.23.1.2. Regulation 6.18 applies, with standards in sections 4.1.1 through 4.1.4, 4.1.6, 4.1.8; 4.2.1 through 4.2.7 and

4.3.2. Record keeping requirements are in sections 4.4.2 and 4.4.3.

7) In lieu of recording annual throughputs for each Insignificant Activity, the owner or operator may elect to report the Potential To Emit quantity listed in the Insignificant Activities table as the annual emission for each piece of equipment, since the emissions from the source's Insignificant Activities are minor.